Amendments to the Claims:

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

Claims 1-7. (CANCELLED)

8. (PREVIOUSLY PRESENTED) An interface for a monitor and a temperature probe including a temperature sensor comprising:

a logic circuit for determining a modified resistive output for the temperature sensor and

a means for providing the modified resistive output, wherein the means for providing the modified resistive output is compatible with the monitor such that the monitor can display a temperature that corresponds to the modified resistive output from the temperature probe.

9. (ORIGINAL) The interface of claim 8 wherein the logic circuit is programmed to execute a predictive or a correlative algorithm.

10. (ORIGINAL) The interface of claim 9 wherein the logic circuit is a microprocessor.

11. (ORIGINAL) The interface of claim 8 wherein the means for providing the modified resistive output is a potentiometer and the logic circuit sends a control

signal to the potentiometer such that the potentiometer provides the modified resistive output.

12. (ORIGINAL) The interface of claim 11 wherein the probe includes two potentiometers.

13. (ORIGINAL) The interface of claim 8 wherein the means for providing the modified resistive output includes a FET.

14. (ORIGINAL) The interface of claim 8 wherein the means for providing the modified resistive output includes a photocell and an LED.

15. (CANCELLED)

16. (PREVIOUSLY PRESENTED) A temperature probe comprising:

a temperature sensor having a resistive output,

a processor for determining a modified resistive output for the temperature sensor, the processor being programmed to execute a predictive or a correlative algorithm, and

a FET for providing the modified resistive output in response to a signal from the processor,

wherein the algorithm is a predictive algorithm that converts the resistive output of the temperature sensor during a thermally unstable condition to a modified resistive output representative of a predicted temperature during a condition of thermal stability.

17. (ORIGINAL) The temperature probe of claim 16 wherein the processor executes an algorithm to convert the resistive output of the temperature sensor to a modified resistive output that can be displayed by a monitor.

18. (CANCELLED)

19. (PREVIOUSLY PRESENTED) The temperature probe of claim 16 wherein the probe includes two FETs.

Claims 20 -24 (CANCELLED)

25. (PREVIOUSLY PRESENTED) A method for digitally modifying the resistive output of a temperature sensor which comprises inputting the resistive output from the temperature sensor to a logic circuit, implementing a predictive or a correlative algorithm using the logic circuit to determine a modified resistive output, controlling a gate of a FET to adopt a setting corresponding to the modified resistive output, and outputting a resistance corresponding to the modified resistive output.

26. (CANCELLED)

27. (PREVIOUSLY PRESENTED) A temperature probe comprising:

a temperature sensor that provides a resistive output,

a logic circuit for determining a modified resistive output for the temperature sensor, and

a means for providing the modified resistive output including a FET,

wherein the logic circuit is a microprocessor programmed to execute a predictive or a correlative algorithm, and

wherein the microprocessor includes an output and the FET includes a gate, where the output of the microprocessor controls the gate of the FET such that the FET provides a FET resistance corresponding to the modified resistive output.

28. (PREVIOUSLY PRESENTED) The temperature probe of claim 27 wherein the microprocessor further includes:

a first input from a first amplifier, where the first amplifier measures a FET voltage of the FET, and

a second input from a second amplifier, where the second amplifier measures a resistor voltage of a resistor having a first resistance,

where the microprocessor calculates a FET current using the first resistance and the resistor voltage from the second input, calculates a FET resistance using the FET voltage from the first input and the FET current, compares the FET resistance to the modified resistive output and applies a difference between the FET resistance and the modified resistive output as a negative feedback to the gate.

29. (PREVIOUSLY PRESENTED) The interface of claim 13 wherein the interface includes two FETs.

30. (PREVIOUSLY PRESENTED) An interface for a monitor and a temperature probe including a temperature sensor comprising:

a logic circuit for determining a modified resistive output for the temperature sensor and

a means for providing the modified resistive output, wherein the means for providing the modified resistive output includes a FET, and

wherein the logic circuit includes an output and the FET includes a gate, where the output of the logic circuit controls the gate of the FET such that the FET provides a FET resistance corresponding to the modified resistive output.

31. (PREVIOUSLY PRESENTED) The interface of claim 30 wherein the logic circuit further includes:

a second input from a second amplifier, where the second amplifier measures a resistor voltage of a resistor having a first resistance,

where the logic circuit calculates a FET current using the first resistance and the resistor voltage from the second input, calculates a FET resistance using the FET voltage from the from the first input and the FET current, compares the FET resistance to the modified resistive output and applies a difference between the FET resistance and the modified resistive output as a negative feedback to the gate.

32. (PREVIOUSLY PRESENTED) A temperature probe comprising:

a temperature sensor having a resistive output,

a processor for determining a modified resistive output for the temperature sensor, the processor being programmed to execute a predictive or a correlative algorithm, and

a FET for providing the modified resistive output in response to a signal from the processor,

wherein the processor includes an output and the FET includes a gate, where the output of the processor controls the gate of the FET such that the FET provides a FET resistance corresponding to the modified resistive output.

33. (PREVIOUSLY PRESENTED) The temperature probe of claim 32 wherein the processor further includes:

a first input from a first amplifier, where the first amplifier measure a FET voltage of the FET, and

a second input from a second amplifier, where the second amplifier measures a resistor voltage of a resistor having a first resistance,

where the processor calculates a FET current using the first resistance and the resistor voltage from the second input, calculates a FET resistance using the FET voltage from the first input and the FET current, compares the FET resistance to the modified resistive output and applies a difference between the FET resistance and the modified resistive output as a negative feedback to the gate.

34. (PREVIOUSLY PRESENTED) The method of claim 25 further including measuring a FET voltage with a first amplifier, measuring a resistor voltage of a first resistor having a first resistance, calculating a FET current using the first resistance and the resistor voltage, calculating a FET resistance using the FET voltage and the FET current, comparing the FET resistance to the modified resistive output and applying a difference between the FET resistance and the modified resistive output as a negative feedback to the gate.

35. (NEW) An interface for a monitor and a temperature probe including a temperature sensor comprising:

a logic circuit responsive to a first resistive output from the temperature sensor, said first resistive output being indicative of a first temperature, said first temperature being sensed by the temperature sensor, said logic circuit adjusting said first resistive output to form a second resistive output, wherein said second resistive output is indicative of a second temperature; and

a means for providing said second resistive output, wherein the means for providing the second resistive output is compatible with the monitor such that the monitor can display said second temperature.

36. (NEW) The interface of claim 35, wherein the logic circuit is programmed to execute a predictive algorithm, said predictive algorithm adjusting said first resistive output to form said second resistive output.

37. (NEW) The interface of claim 35, wherein the logic circuit is programmed to execute a correlative algorithm, said correlative algorithm adjusting said first resistive output to form said second resistive output.

38. (NEW) The interface of claim 35, wherein said logic circuit is a microprocessor.

39. (NEW) The interface of claim 35, wherein said first and second temperature are equal.

40. (NEW) An interface for a monitor and a temperature probe including a temperature sensor comprising:

a first circuit responsive to said temperature sensor for obtaining a digital signal indicative of a sensed temperature;

a second circuit, said second circuit receiving said digital signal from said first circuit, said second circuit forming a resistive output based on said digital signal, wherein said resistive output is indicative of a temperature determined by said second circuit; and

a means for providing said resistive output, wherein the means for providing said resistive output is compatible with the monitor such that the monitor can display said temperature.